Abstract

A new progressive compression scheme for arbitrary topology, highly detailed and densely sampled meshes arising from geometry scanning. Meshes may have three distinct components: geometry, parameter, and connectivity information. The latter two do not contribute to the reduction of error in a compression setting. Using semi-regular meshes, parameter and connectivity information can be virtually eliminated. The semiregular meshes may be used with semi-regular wavelet transforms, zerotree coding, and subdivision based reconstruction.